REMARKS

Claims 1-21 and 32-45 are pending in this application.

All of the pending claims currently stand rejected. Applicants' representative respectfully requests that the Examiner consider the arguments made below on behalf of the Applicants, and withdraw the rejection of the claims.

Claims 1-12, 15-21 and 34-43 stand rejected under 35 USC §102(e) as anticipated by Nishijima, U.S. Patent No. 5,947,711. The rejection is respectfully traversed.

With regard to claims 1-12, 15-21 and 34-43, the Examiner points generally to Figures 1-2 and 5-8 of Nishijima as disclosing a video recording system and method steps for application in video surveillance comprising: a CCD video camera (item 1); a central controller (item 3c); a plurality of sensors for detecting an event (items 5-1 and 5-2); a video monitor (item 4); a data recorder (36); and a data compressor (3a).

Claim 1, the first of the independent claims in the present application, recites a novel device for capturing data comprising: at least one memory for storing data associated with a time period; and a control processor operative to store the data in the at least one memory such that the stored data associated with a portion of the time period closer to an event has a first resolution and the stored data associated with a portion of the time further from the event has a second resolution different from the first resolution.

With regard to the storage of data in different resolutions, the Examiner points to Figure 4 of Nishijima as disclosing that recording can be done either in an intermittent mode (at selectable frame rates) or in continuous mode. Moreover, the Examiner points to the discussion in column 3,

line 1, through column 4, line 64, as disclosing data compression at several different ratios to accommodate recording at different video resolution. The Examiner, states that, for example, during the time leading up to detecting the occurrence of an event (e.g. via sensors 5-1 and 5-2 of Figure 1), data are recorded at a high compression rate which would yield a course resolution. However, when an event is detected, data are recorded at a compression rate to ensure greater resolution.

While it is acknowledged that the apparatus of Nishijima is capable of recording video data at different frame rates and compression ratios, it is respectfully submitted that Nishijima does not teach or suggest the distinguishing feature of claim 1, that is, that the stored data closest to an event (both before and after) has a first resolution, and the stored data further away from an event has a second resolution different from the first. Nishijima discloses recording video frames on a recording medium in strict sequence, with any change in frame rate and/or compression ratio being triggered by an event. As best understood, the apparatus in Nishijima employs a video tape or other similar medium, and is not capable of recording video data such that the resolution of the data, both before and after a triggering event, is related to its proximity to the triggering event, as required by claim 1.

Claim 2 of the present application is directed to at least one first sensor type to generate the data, at least one second sensor type to generate a signal representing the event, and a control processor that operates to store the data associated with the time period closer to the event has the first resolution responsive to the signal.

The Examiner points to different types of media disclosed by Nishijima for recording data, and contends that with a continuous recording mode, it is inherent to make any of these

recording media into a circular memory as claimed. While Nishijima does disclose various recording media such as magnetic tape and video disc, it is respectfully submitted that Nishijima lacks any teaching or suggestion of a circular memory. To the contrary, Nishijima teaches the use of video compression as the preferred method of extending recording time (see, for example, column 10, lines 1-7). As discussed above, the strictly sequential recording of data in Nishijima precludes storage of data, both before and after event, such that the resolution of the data is related to its proximity to the event, as required by claim 2.

Claim 3 is directed to the generation of a signal indicative of an event, and recites that the at least one sensor type referred to in claim 2, includes an accelerometer. Nishijima discloses a variety of event sensors, such as a motion detector, a light detector, a sound detector, a mechanical switch, and a heat (temperature) sensor (see, for example, column 3, lines 41-44), but an accelerometer is not specifically disclosed. Hence, it is respectfully submitted that claim 3 independently distinguishes over the applied art reference.

Claim 4 recites the invention of claim 1, further including a capture switch, where the control processor is operative to store only a predetermined amount of data within the memory following user activation of the capture switch. Nishijima discloses only that recording stops when intentionally terminated or when the end of the magnetic tape is reached (see, for example, column 5, lines 58-64)). Hence, it is respectfully submitted that claim 4 independently distinguishes over Nishijuma.

Claim 6 is directed to compression of the data prior to storage. Claim 37-39 are directed more generally to the temporal and spatial resolution of the captured data. The Examiner

points to column 4, lines 28-64, and column 10, lines 31-37, as disclosing the possible use of interframe as well as intraframe compression, to achieve greater storage capacity. The Examiner contends it is inherent that the temporal and spatial resolutions claimed in the present application are directly related to whether compression is carried out interframe or intraframe. Whether or not the Examiner's characterization of temporal and spatial resolution is correct, it is immaterial in this case because claims 6, 38, and 39, all require that the control processor be operative to compress the data associated with the portion of time closer to the event at a first compression ratio, and the data associated with the portion of time further from an event of a second compression ration different from the first. As: discussed above, Nishijima does not disclose this feature, and hence, it is respectfully submitted that claims 6, 38 and 39 independently distinguish over the applied art reference.

Claim 36 recites encrypting the captured data prior to storage. The Examiner asserts it is inherent that data encryption is involved in Nishijima because error detection and correction is disclosed at column 4, lines 61064. As best understood, error detection and correction are related to encoding (also discussed in the referenced text), and not encryption, which is usually done as a means of achieving data security and/or authentication. Hence, it is respectfully submitted that claim 36 distinguishes over the applied prior art.

Claim 35 recites that the first resolution (of the data) is exponentially higher than the second resolution (of the data). The Examiner asserts that in Nishijima, the compression ratio (and correspondingly, the image resolution) varies from high, to

intermediate, to low, and that this can be read as having "exponentially" higher image resolution, as claimed.

The claims are to be interpreted by reference to the disclosure. Page 11, lines 32-36, of the present application indicates that in response to a triggering event, an exponential change in resolution may be employed. Nishijima discloses that a number of compression ratios are available after the event, but does not teach or suggest a resolution that varies exponentially over time after the event.

Other claims rejected by the Examiner under §102(e), and that depend from claim 1, also recite features that are independently distinguishable from Nishijima. Such features include the number of video frames per unit time represented by stored data associated with the period time close to the event is greater than the number of such frames for the period further from the event, as recited in claim 5; storage of data only in approximately half of the frame locations in memory following the event, as recited in claims 9; the memory is a plurality of memories corresponding to the number of sensors, as recited in claim 10; a lens positioned to focus an image on the sensor and to cover a viewing angle, as recited in claim 12; a purge switch, as recited in claim 34; and the control processor is operative to store only a predetermined amount of data following the event, as recited in claim 40.

Claims 15-21 and 41-43 are method claims with recitations that correspond to claim 1 and its dependencies. For reasons that should be clear from the discussion above, it is respectfully submitted that claims 15-21 and 41-43 distinguish over Nishijima, either independently or on the basis of the recitations in their base claims.

Claims 13-14, 32-33 and 44-45 stand rejected under 35 USC §103(a) as being obvious over Nishijima in view of Freeman, U.S.

Patent No. 6,002,808, and further in view of Chow, U.S. Patent No. 5,016,633. The rejection is respectfully traversed.

With respect to claims 13-14, the Examiner admits that Nishijima fails to disclose that the image sensor includes an artificial retina. However, the Examiner contends that the artificial retina as claimed is a matter of design incorporating well-known art. The Examiner asserts that Freeman and Chow, for example, makes well known the use of this feature.

It is well established that obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion or incentive supporting the combination. The invention in Freeman is a hand gesture control system that uses an artificial retina as a sensor device in recognizing and distinguishing the shapes formed by human hand gestures. As best understood, the use of an artificial retina is advantageous in this application because it provides a rapid means of calculating image moments through precalculation of x and y projections by the artificial retina chip itself (see Freeman, column 5, lines 34-40).

Chow discloses the use of the artificial retina chip in a surgical technique intended to correct certain types of retinal dysfunction. It is respectfully submitted that neither Freeman nor Chow teach or suggest a combination involving an image capturing and storage system. Further, it is respectfully submitted that Chow, which involves a medical device and procedure, is non-analogous art. Hence, neither Freeman nor Chow cures the failure in Nishijima.

With regard to claims 32-33 and 44-45, the Examiner admits that Nishijima fails to disclose that the surveillance system comprises a tamper resistant housing and that such housing is portable. However, the Examiner takes Official Notice that enclosing a video surveillance system in a tamper resistant

housing and making it portable are nothing new and widely practiced in the art.

The Examiner's Official Notice is not supported by any references to show what might have been obvious to a person of ordinary skill in the art at the time the invention was made. Therefore, it is respectfully requested that the Examiner provide such supporting evidence, or in its absence, withdraw the rejection of the claims on these grounds.

Further, with regard to the other features of claims 44 and 45, the Examiner relies on the grounds for rejection asserted above based on Nishijima.

Claims 44 and 45 recite an additional embodiment of the invention. This device is compact, portable, and has no moving parts. Claim 44 recites a device that generates data associated with a period of time, generates a signal representing an event, includes a processor and stores data in a circular buffer memory. The claim further recites that stored data associated with a portion of the time period following receipt of an event signal has a first resolution, and that stored data associated with a portion of the time period prior to receipt of an event signal has a second lower resolution. Claim 45 recites additional disclosed features of this embodiment, such as 'still' and 'purge' switches and a power source.

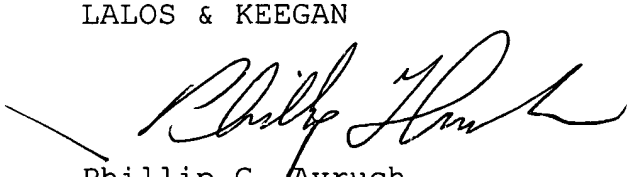
As discussed earlier, the prior art fails to disclose, teach or suggest a device and method for recording data both before and after an event wherein the data is stored at different resolutions dependent upon the proximity to the event as the present application discloses. For this reason and others that should be clear from the above, it is respectfully submitted that claims 44 and 45 distinguish over the applied prior art combinations.

In view of the foregoing, it is respectfully submitted that the application is in condition for allowance and an early indication of the same is courteously solicited. The Examiner is respectfully requested to contact the undersigned by telephone at the below listed local telephone number, in order to expedite resolution of any remaining issues and further to expedite passage of the application to issue, if any further comments, questions or suggestions arise in connection with the application.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 12-0429 and please credit any excess fees to such deposit account.

Respectfully submitted,

LALOS & KEEGAN



Phillip G. Avruch
Registration No. 46,076

1146 Nineteenth Street, N.W.
Fifth Floor
Washington, D.C. 20036-3703
Telephone: 202-887-5555
Facsimile: 202-296-1682
Date: July 14, 2000